|  |  |
| --- | --- |
| **1. Name: Patricia Brooks** | **2. Target Grade/Student Level for this Lesson:**  **Grade 5 ~ General Ed** |
| **3. Date: April 21, 2018** | **4. P Credit Course Title: Energy, Water and Waste: Integrating Themes of Sustainability into Your Classroom**  **Reduce, Reuse, and Recycle** |
| **5. Lesson Goal:**  The goal of this lesson is for students to create a product by reusing a common household item that would otherwise be thrown away. | |
| **6. Vocabulary Words:**  **reuse - to** use again, **landfill** - an area where garbage is dumped and covered with dirt organic grown only with natural fertilizers, **biodegradable** - able to be broken down by tiny organisms  **raw materials** - things in nature that people use to make things, **recycle -** to make new things from old materials, **compost** - a soil like mixture made from rotting plant and animal matter  **pollution** - the introduction of harmful materials into our soil, air, or water  **environment** - the surroundings in which a person, animal, or plant lives  **disposable** - meant to be thrown away after one use  **conservation** - the wise use of water, land, and other resources to minimize waste or loss  **trash** - things that are thrown away, **natural resource** - something in nature that helps support life or meets people's needs, **hazardous waste** - toxic things that are thrown away that harm the earth and living things, **reduce** - to use less or make less waste | |
| **7. Lesson Objective:** Students will be able to identify ways to reduce, reuse, and recycle products, then work in teams to develop a product by reusing common household items.  **Science learning standards**:  SC.H.1.1.5 Uses senses, tools and instruments to obtain information from surroundings  **Common Core State Standards**  **RI.5.3** Explain the **relationships or interactions between two or more** individuals, **events, ideas,** or concepts in a historical, scientific, or technical text based on specific information in the text.  **RI.5.4** Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topics or subject area.  **W.5.1** Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (5-LS1-1)  **SL.5.5** Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes | |
| **8. Sources: (Primary)**  **Video on Waste and Recycling**  <https://www.vimeo.com/195856946>  Assessment (Project Base Learning)  [**https://www.bie.org/object/document/3\_5\_creativity\_innovation\_rubric\_ccss\_aligned**](https://www.bie.org/object/document/3_5_creativity_innovation_rubric_ccss_aligned) | |
| **9. Student Engagement Activities:**  **Finding Ways to Reuse Common Household Waste Items**  Explain to students that we can do our part by recycling items at home in classroom conserving resources like water and electricity, and finding ways to reuse items around the house.   in a lot of plastic bags, water bottles, and paper towel and toilet paper roll. Share with students that these are items that are in homes that could possibly be reused in some way.   Group students with the task of coming up with some way to reuse these items.  Explain to students that recycling is done at a recycling center, we just turn in the items to be recycled and conservation involves doing things at home like turning lights off and using less water.  Finding ways to reuse common items we might otherwise throw away, could give us all ideas on creative things we could use items for.  For the next 30 minutes, groups use laptops to search for some ideas and then begin creating a new product using these old items.  **Group One -** cut up the plastic bags, braids them together, and tapes the ends to create a jump rope.  They can demonstrate using the jump rope when groups present their product at the end of the lesson.  **Group Two** - make bird feeders out of toilet paper rolls.  They covered paper towel rolls in peanut butter and then rolled them in birdseeds.  They tied a string through the roll to hang from a tree or outside a classroom window.  **Group Three** - used clear plastic water bottles for planters.  They cut the bottles in half, turned the top portion over and glued it down in the bottom.  They then filled the top with soil and planted seeds in it.   The use of clear water bottles will allow kids to see the roots grow and spread out as the plant grows.  They also left the cap off and believe that this will help allow water to fill up the bottom and be used by the plant as it needs it.  **Idea:** As a classroom teacher we receive many notices for students to take home. I find that at times some notices are not given out. Instead of trashing them I use the blank side in the printer for printing. Or a second idea can be to shed paper and use as packaging. | |
| **10. Lesson Design:**  **Warm Up:**   * Chart paper for creating a sign showing how long it takes 10 common items to decompose * Black construction paper to cover up the times so that students have to guess.   **Guided Practice:**   * Chart paper for creating a poster for meanings and examples of **Reduce, Reuse, Recycle**   Divided chart paper into three sections titled: Reduce, Reuse, And Recycle.   Explain to students that these three words are examples of ways we can help protect the Earth and keep some items out of landfills.  Solicit ideas on the meaning of each word and then some examples.    Simple meanings for words:   * Reduce - Use less of something * Reuse - Use something again in a new way * Recycle - To transform back to its raw form and make something new   **11. Wrap Up:**  Groups share their products.  It also provides the other students with ideas that they would do at home to reuse some of the items.  **12. Student Assessment:**  **See rubric (separate document)**  CreativitY & Innovation RuBRIC for PBL  (for grades 3-5; CCSS ELA aligned) | |